

AMENDMENTS

In the Claims

The following is a marked-up version of the claims with the language that is underlined ("____") being added and the language that contains strikethrough ("~~—~~") being deleted:

1-8. (~~Cancelled~~)

9. (Currently Amended) A method for controlling the transmission of data between ~~at least two stations~~ a first and second station over a transmission medium connecting the first and second station, ~~each station including data links for applications with assigned priorities and parameters identifying a quality of service~~, said method comprising the steps of:

~~establishing a new data link in a first station having an assigned priority;~~

~~assigning the data link to a first application;~~

receiving a request for a new data link having a first channel capacity at a first priority level from a first application at the first station;

determining a function of the ~~an~~ available free channel capacity of the transmission medium, the free channel capacity including a currently unused capacity and at least a portion of capacity currently allocated to data links having a priority level less than the first priority level;

~~determining the occupancy of the transmission medium by existing data links;~~

~~determining assigned priorities of the existing data links; and~~

~~restricting the new data link based at least on the determined function, determined occupancy, and the determined assigned priorities of the existing data links~~

determining that the free channel capacity at the first priority level is less than the requested first channel capacity; and

delaying the establishment of the new data link for a first period of time.

10. (Currently Amended) The method in accordance with claim 9, ~~wherein further comprising:~~
preventing the degradation of already-existing data links having a priority level equal to the first
priority level by excluding from the determination of free channel capacity the capacity currently
allocated to data links having a priority level equal to the first priority level,

~~during the establishment of the new data link, determining whether the measure of the available~~
~~free channel capacity corresponds to a measure of the necessary channel capacity given by the~~
~~parameters of the first application, with at least part of any data traffic which is assigned to applications~~
~~with lower priority than the priority of the first application being considered, in the context of the~~
~~determination step, to be free channel capacity, and~~

~~based at least on the determination, establishing a link.~~

11. (Currently Amended) The method in accordance with claim 10, ~~wherein the channel capacity is~~
~~regarded as free up to the point where a threshold is reached, with this threshold corresponding to a~~
~~relative fraction of the data traffic which is assigned to applications with a lower priority a maximum~~
~~threshold level of capacity currently allocated to data links having a priority level less than the first~~
~~priority level is defined at the first station, and applied in determining free channel capacity, preventing~~
~~the station from characterizing all of the capacity currently allocated to data links having a priority~~
~~level less than the first priority level as free channel capacity.~~

12. (Currently Amended) A method for controlling the transmission of data between ~~at least two~~
~~stations a first and second station~~ over a transmission medium connecting the first and second station ;

each station including data links for applications with assigned priorities and parameters identifying a quality of service, said method comprising the steps of:

establishing a new data link in a first station having an assigned priority;

assigning the data link to a first application;

receiving a request for a new data link having a first channel capacity at a first priority level from a first application at the first station;

determining a function of the available free channel capacity of the transmission medium, together with the occupancy of the transmission medium by existing data links;

restricting the new data link according to the determined function and the assigned priority of the first application as compared to existing priorities, wherein

a) during the establishment of a new data link by the first station, the first station establishing the new data link without regard for the current utilization of the medium,

b) communicating a message to the first station if the transmission medium is occupied by data links assigned to an application with a second priority corresponding to that of the first application by at least one of the two stations which are maintaining data links assigned to the application with the second priority via the transmission medium

receiving a message from the second station to halt the new data link, and

[[c)] at least temporarily suspending the new data link for a first period of time after receiving the message.

13. (Currently Amended) The method in accordance with claim 12, wherein setting a delay time based at least on the establishing of the data link and further comprising, after the delay first period of time, repeating steps a) to e) the first station again establishing a second new data link without regard for the current utilization of the medium.

14. (Currently Amended) The method in accordance with claim 13, ~~wherein after each repetition the delay time is increased by a discrete value~~

after the first period of time, and after establishing a new data link again, receiving a second message from the second station to halt the second new data link,

delaying the establishment of the new data link for a second period of time, the second period of time equal to the first period of time increased by a discrete value.

15. (Currently Amended) The method in accordance with claim 14, wherein the ~~repetitions continue establishment of the new data link is repeated~~ until either the ~~establishment of a data link is permitted or the attempt to establish a transmission via the new data link completes or the new data link attempts are~~ it is finally halted by a termination condition.

16. (Currently Amended) The method in accordance with claim 14, wherein the duration of the ~~suspension before steps a) to c) are repeated can be prescribed~~ first period of time is set by a portion of as part of the message [[by]] received from the second station as a function of an assessment of a second data link.

Please add the following new claims:

17. (New) The method in accordance with claim 9, further comprising:
after the first period of time, determining again that the free channel capacity at the first priority level is less than the requested first channel capacity; and
delaying the establishment of the new data link for a second period of time, the second period of time equal to the first period of time increased by a discrete value.
18. (New) The method in accordance with claim 17, wherein the determining of free channel capacity and delaying of the establishment of the new data link are repeated until either the establishment of a data link is permitted or the attempt to establish the new data link is finally halted by a termination condition.
19. (New) The method in accordance with claim 9, wherein the threshold level is a percentage of the capacity currently allocated to data links having a priority level less than the first priority level.
20. (New) The method according to claim 12, wherein the message received from the second station is tagged as having a highest priority.
21. (New) A method for controlling the transmission of data between a first and second station over a transmission medium connecting the first and second station, said method comprising:
maintaining one or more data links at a second station having a second priority;
determining that a new data link established by a first station having a priority equal to a priority of the one or more data links would cause a loss of quality of the one or more data links; and

sending a message to the first station instructing the first station to at least temporarily suspend the new data link for a first period of time.

22. (New) The method in accordance with claim 21, further comprising, after the first period of time, the second station determining that a second new link established by the first station having a priority equal to a priority of the one or more data links would cause a loss of quality of the one or more data links; and

sending a second message to the first station instructing the first station to at least temporarily suspend the second new data link for a second period of time equal to the first period of time increased by a discrete value.

23. (New) The method in accordance with claim 21, wherein the determining that a new data link established by a first station having a priority equal to a priority of the one or more data links would cause a loss of quality of the one or more data links comprises detecting a buffer overflow condition.